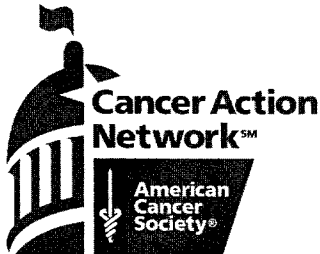


**American Cancer Society Cancer Action Network**

3550 Mullan Road ■ Suite 105 ■ Missoula, MT 59808

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Date 1-16-09Bill No. SB 44[www.acscan.org/montana](http://www.acscan.org/montana)

January 16, 2009

Senator Roy Brown, Chair  
Public Health, Welfare and Safety Committee  
Montana Senate  
Helena, MT 59620

Chairman Brown and Members of the Committee:

For the record my name is Jim Ahrens representing the American Cancer Society Cancer Action Network (ACS CAN). ACS CAN is the nonprofit, nonpartisan advocacy partner of the American Cancer Society that supports evidence-based policy and legislative solutions designed to eliminate cancer as a major health problem.

We stand in support of SB 44 and thank Senator Kim Hansen for sponsoring this bill that calls for creating a Legislative Health Policy Council. ACS CAN and the Society have participated in and support the Montana Health Care Forum proposal to create this health policy council.

ACS CAN and the American Cancer Society are working together to elevate the issue of access to quality care and its impact on cancer patients and their families by educating the public and policymakers about problems in the health care system and the need for change.

If adopted, we ask the legislature to serve as a watch dog of this process to make sure the voices of patients play a major role in the process of identifying real solutions to providing all residents with access to quality health care services at costs that are affordable.

To reinforce why it will be important for members of the health policy council to hear from chronically and terminally ill patients as well as health advocacy organizations such as the American Cancer Society Cancer Action Network, I submit to you for the record an article published in the CA Cancer Journal for Clinicians which shows the association of insurance with cancer care utilization and outcomes.

Briefly, advances in the prevention, early detection, and treatment of cancer have resulted in an almost 14% decrease in the death rates from all cancers combined from 1991 to 2004 in the overall US population, with remarkable declines in mortality for the top 3 causes of cancer death in men (lung, colorectal, and prostate cancer) and 2 of the top 3 cancers in women (breast and colorectal cancer). However, not all segments of the population have benefited equally from this progress, and evidence suggests that some of

these differences are related to lack of access to health care. Lack of adequate health insurance appears to be a critical barrier to receipt of appropriate health care services. This article provides an overview of systems of health insurance in the United States, demographic and socioeconomic characteristics associated with health insurance coverage, and economic burdens related to health care among individuals and families. This article also presents data on the association between health insurance status and screening, stage at diagnosis, and survival for breast and colorectal cancer based on analyses of the National Health Interview Survey and the National Cancer Data Base. Although this article focuses on associations between health insurance and cancer care utilization and outcomes, it is important to recognize that barriers to receipt of optimal cancer care are complex and involve patient-level, provider, and health system factors. Evidence presented in this paper suggests that addressing insurance and cost-related barriers to care is a critical component of efforts to ensure that all Americans are able to share in the progress that can be achieved by access to high-quality cancer prevention, early detection, and treatment services. (CA Cancer J Clin 2008;58:9-31.) © American Cancer Society, Inc., 2008.

We would also like to place in the record a list of resources we find useful in examining Access to Care Issues in the Future.

Sincerely,

Jim Ahrens

Attachments (2)

# Association of Insurance with Cancer Care Utilization and Outcomes

Elizabeth Ward, PhD; Michael Halpern, MD, PhD; Nicole Schrag, MSPH;  
Vilma Cokkinides, PhD, MSPH; Carol DeSantis, MPH; Priti Bandi, MS;  
Rebecca Siegel, MPH; Andrew Stewart, MA; Ahmedin Jemal, DVM, PhD

**ABSTRACT** Advances in the prevention, early detection, and treatment of cancer have resulted in an almost 14% decrease in the death rates from all cancers combined from 1991 to 2004 in the overall US population, with remarkable declines in mortality for the top 3 causes of cancer death in men (lung, colorectal, and prostate cancer) and 2 of the top 3 cancers in women (breast and colorectal cancer). However, not all segments of the population have benefited equally from this progress, and evidence suggests that some of these differences are related to lack of access to health care. Lack of adequate health insurance appears to be a critical barrier to receipt of appropriate health care services. This article provides an overview of systems of health insurance in the United States, demographic and socioeconomic characteristics associated with health insurance coverage, and economic burdens related to health care among individuals and families. This article also presents data on the association between health insurance status and screening, stage at diagnosis, and survival for breast and colorectal cancer based on analyses of the National Health Interview Survey and the National Cancer Data Base. Although this article focuses on associations between health insurance and cancer care utilization and outcomes, it is important to recognize that barriers to receipt of optimal cancer care are complex and involve patient-level, provider, and health system factors. Evidence presented in this paper suggests that addressing insurance and cost-related barriers to care is a critical component of efforts to ensure that all Americans are able to share in the progress that can be achieved by access to high-quality cancer prevention, early detection, and treatment services. (*CA Cancer J Clin* 2008;58:9-31.) © American Cancer Society, Inc., 2008.

## INTRODUCTION

Over the last decade, there have been major advances in the prevention, early detection, and treatment of cancer. However, these advances have not been experienced equally by all segments of the population. Evidence is increasing that for some Americans, lack of health insurance or inadequate health insurance is a major barrier to preventive health services and adequate treatment. Early detection through screening has been demonstrated to decrease mortality from breast and colorectal cancer, yet people without health insurance are half as likely as those with private insurance to receive such screening.<sup>1</sup> As a result of lower screening rates and limited access to primary care for prompt evaluation of symptoms, individuals with no health insurance are much more likely than those with private health insurance to be diagnosed with advanced stages of cancer.<sup>2-5</sup> Furthermore, many cancer patients with health insurance face severe financial hardships due to the costs of treatment that are not covered by their insurance. For some, this financial burden requires choices between health care and other necessities, thereby contributing to poor health outcomes. These insurance and cost-related barriers to high-quality cancer prevention, early detection, and treatment are growing due to declines in coverage by employer-sponsored health insurance; increases

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DOI: 10.3322/CA.2007.0011

in health insurance premiums, deductibles, and copayments; and rising costs of medical care.

This article provides an overview of systems of health insurance in the United States, demographic and socioeconomic characteristics associated with health insurance coverage, and economic burdens related to lack of insurance and underinsurance in the US population. This article also presents data on the association between health insurance status and screening, stage at diagnosis, and survival for breast and colorectal cancer based on analyses of the National Health Interview Survey (NHIS) and the National Cancer Data Base (NCDB).

Although this article focuses on associations between health insurance and cancer care utilization and outcomes, it is important to recognize that barriers to receipt of optimal cancer care are complex and involve patient-level, provider, and health system factors.<sup>6</sup> Even among individuals with adequate health insurance, variation in receipt of optimal care and outcomes can be observed by race and ethnicity, sex, age, income, education, urban versus rural area of residence, and other sociodemographic and geographic factors. African Americans in particular are at increased risk of developing and dying from cancer and often receive poorer-quality treatment and have lower survival rates than their White counterparts who are diagnosed with cancers of similar disease stage.<sup>6</sup> Addressing insurance and cost-related barriers to high-quality prevention, early detection, and treatment is not the only measure that will be needed to eliminate cancer disparities, but the data that will be presented in this article suggest that it is an important one.

#### MATERIALS AND METHODS

##### Data Sources

Information on insurance status and relationships with access to health care, preventive services, and cancer screening was obtained by analysis of data from the NHIS conducted in 2005 and 2006. The NHIS is a survey of the Centers for Disease Control and Prevention's National Center for Health Statistics. The survey is designed to provide national prevalence

estimates on personal, socioeconomic, demographic, and health characteristics of US adults. Data are gathered through a computer-assisted personal interview of adults aged 18 years and older living in households in the United States.<sup>7</sup>

Data from the NCDB were used to examine the relationship between insurance status at the time of diagnosis and cancer survival for all cancers combined and for breast and colorectal cancer. The NCDB is a joint project of the Commission on Cancer of the American College of Surgeons and the American Cancer Society that collects information on demographic and clinical characteristics and first course of treatment for cancer patients diagnosed at approximately 1,500 Commission on Cancer-approved hospitals, representing almost 70% of all cancer patients treated in the United States.<sup>8</sup> We selected cancer patients aged 18 to 64 years reported to the NCDB during 1999 and 2000, the most recent years for which 5-year follow up is available. Patients were further restricted to those with private insurance, Medicaid insurance, and no insurance. Among the 719,915 patients who met these criteria, 7,886 were excluded because the time variable could not be calculated, and 113,394 were excluded because they had other or unknown race (only White, African American, and Hispanic patients were included) or had missing area socioeconomic status (SES) data. A total of 598,635 cases were available for analysis, including 129,644 female breast cancer patients and 44,898 male and female colorectal cancer cases. Cox regression analysis (proportional hazards analysis) was used to model 5-year survival by insurance status, controlling for age, race, sex, and zip code-based income. The proportional hazards assumption was tested before analysis, and none of the variables included in the model violated the assumption when analyses were stratified by age group and site. Results for overall and stage-specific survival were plotted by insurance status.

#### RESULTS

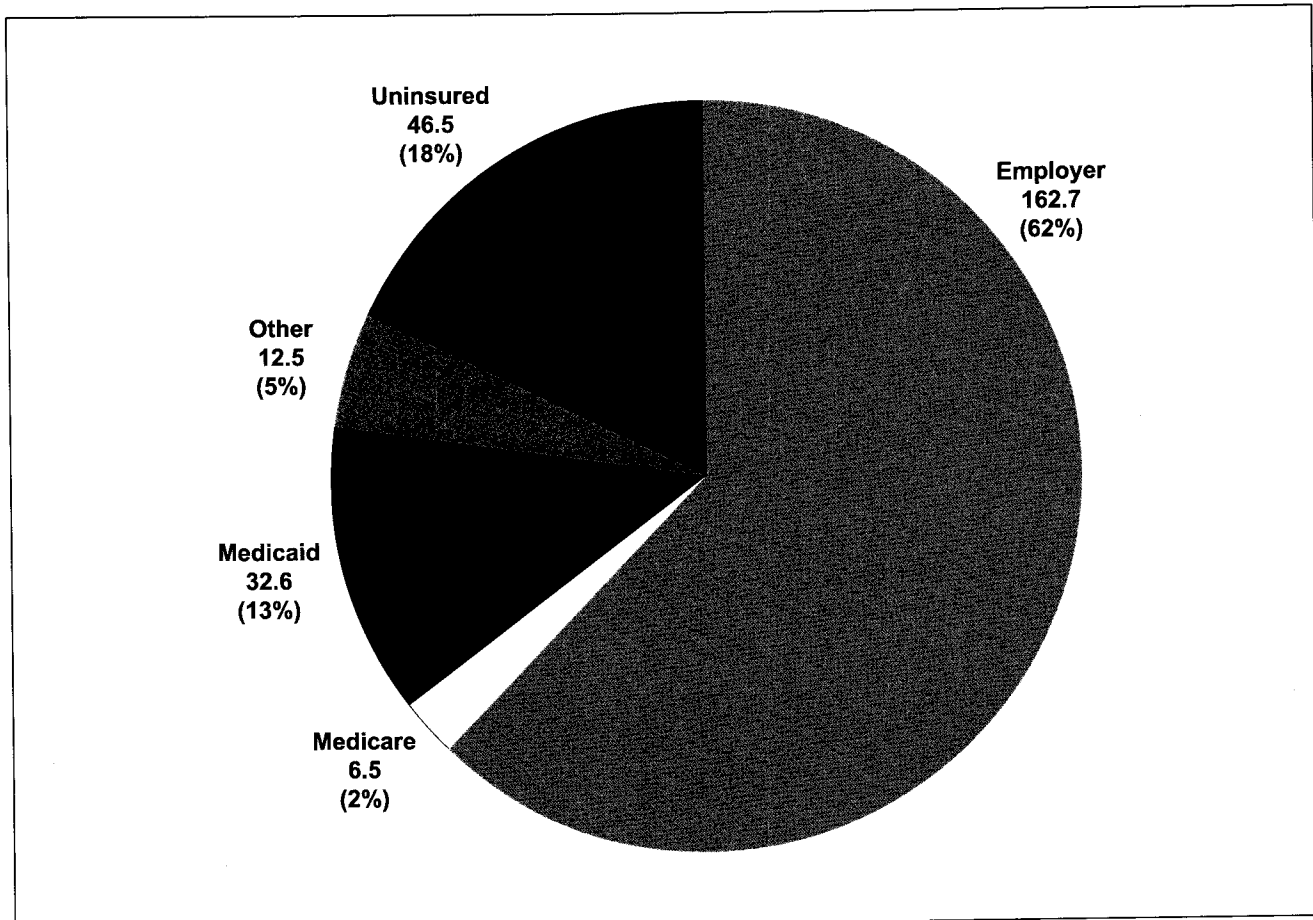
##### Systems of Health Insurance Coverage in the United States

The major systems of health insurance coverage in the United States are employer-sponsored

health insurance, Medicare insurance, Medicaid and State Children's Health Insurance Program (SCHIP) insurance, and private nongroup health insurance. In addition to these broad categories of health insurance, which cover 95% of the insured US population under age 65 years, there are other forms of federal insurance, including coverage through the Veteran's Administration benefits and Indian Health Service, and state insurance programs, including high-risk pools, which we do not discuss further.

**Employer-sponsored Health Insurance.** Most Americans under age 65 years receive their health insurance coverage through their own employer or the employer of a family member (Figure 1). Nearly all companies with more than 200 employees offer health insurance coverage.<sup>9</sup> In 2007, the average costs to employers and employees, respectively, were \$3,785 and \$694 per year

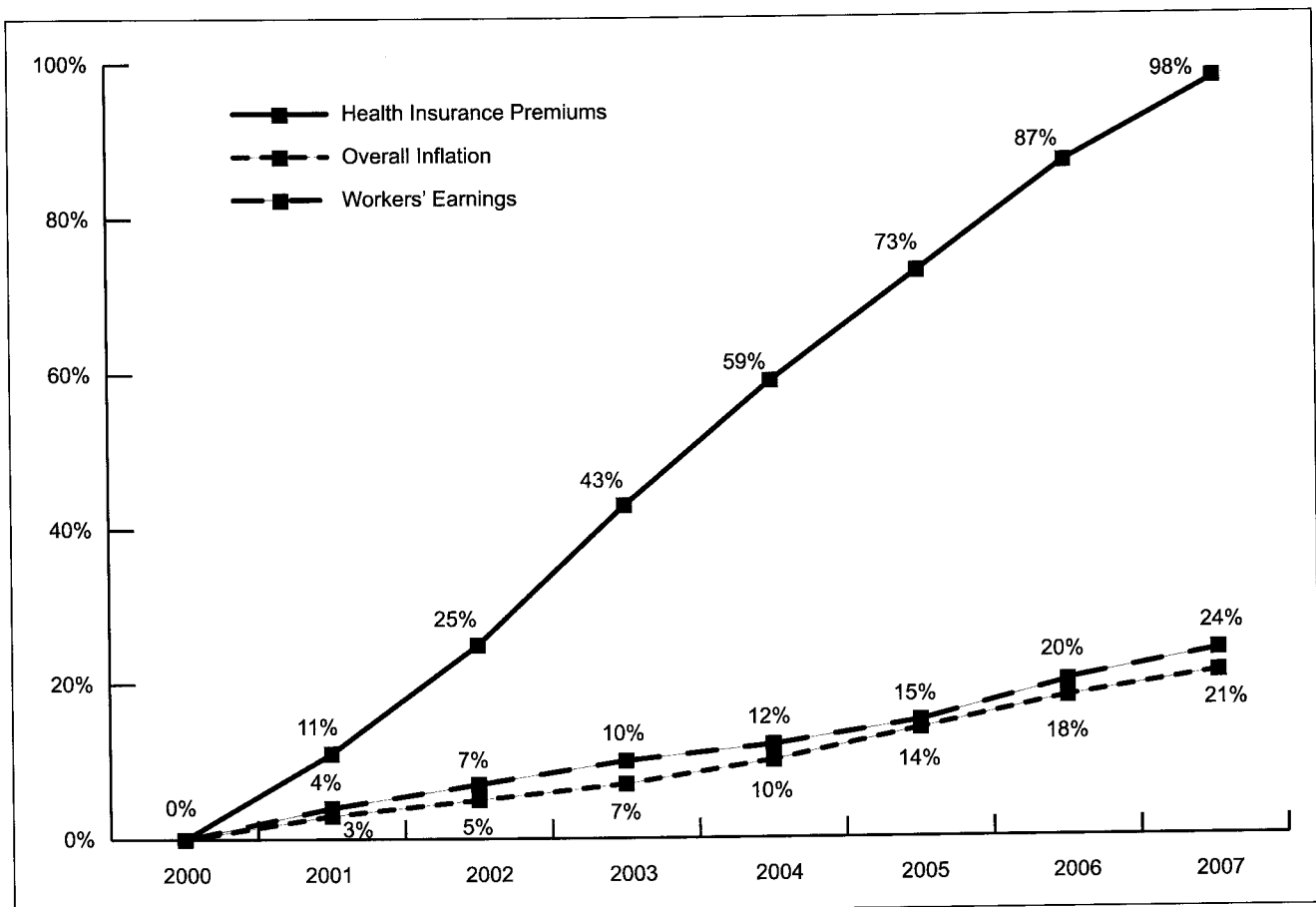
for individual coverage and \$8,824 and \$3,281 per year for family coverage.<sup>10</sup> The employer-based system of health insurance has several advantages, most notably the creation of work-based risk pools in which healthy low-risk participants subsidize the health costs of sick and high-risk participants.<sup>11</sup> However, there are some serious disadvantages to this system. Not all companies offer health benefits, not all workers are eligible for coverage, and not all employees choose to participate or can afford their share of the health premium.<sup>12</sup> Moreover, the cost of health insurance premiums has been rising much faster than the rate of overall inflation and workers' earnings (Figure 2).<sup>10</sup> An important disadvantage of employer-sponsored health insurance is that people who develop a serious illness, such as cancer, may not be able to keep their employment and may lose access to their insurance.



**FIGURE 1** Health Insurance Coverage Among Individuals Under Age 65 Years, 2006 (in Millions).

Reference: Collins SR, White C, Kriss JL.<sup>9</sup>

Source of Data: Current Population Survey, March 2007.



**FIGURE 2** Cumulative Changes in Health Insurance Premiums, Overall Inflation, and Workers' Earnings, 2000 to 2007.

Note: Data on premium increases reflect the cost of health insurance for a family of 4.

Reference: Adapted from Economic challenges facing middle class families: Hearing before the Committee on Ways and Means of the US House of Representatives, 110th Cong. (January 31, 2007). (Testimony of Diane Rowland: Health care: squeezing the middle class with more costs and less coverage).

Source of Data: Claxton G, Gabel J, DiJulio B, et al.<sup>10</sup>

While the Consolidated Omnibus Budget Reconciliation Act (COBRA) allows them to pay to receive health insurance benefits after they leave their job,<sup>13</sup> without employment, the cost of maintaining insurance may be prohibitive. Another disadvantage of employer-sponsored health insurance is that if an individual changes employment or his or her employers change insurance plan options, it may not be possible to continue to use the same health care providers, resulting in discontinuity of care.

**Medicare.** Most Americans aged 65 years and older and about 2% of those under age 65 years receive health insurance through Medicare. US citizens and permanent residents are eligible for Medicare if they or their spouse paid into Social Security for 40 quarters (10 years).

Individuals eligible for Social Security benefits are automatically enrolled in Medicare Part A (hospital insurance) when they turn age 65 years. Medicare Part B provides other types of medical insurance coverage, including coverage for physician's services (inpatient or outpatient); administration of drugs that are not usually self-administered by the patient; outpatient hospital services; diagnostic tests; and specific preventive services, including mammograms, Pap tests, and colorectal cancer screening. Beneficiaries must enroll in Medicare Part B and pay a monthly premium based on their income. Medicare Part A is financed primarily through payroll taxes, while Part B is financed by beneficiary premiums and by federal general revenues. Medicare Part C, also

known as Medicare Advantage, was established in 1997 to allow beneficiaries to enroll in private health insurance plans, and Medicare Part D was enacted in 2003 to provide prescription drug coverage through private drug plans.<sup>14</sup>

Health care premiums and out-of-pocket costs for Medicare beneficiaries are set on an annual basis. In 2008, Medicare beneficiaries are responsible for paying a \$1,024 deductible for the first 1 to 60 days of inpatient hospital care. For stays longer than 60 days, beneficiaries pay an increasing percentage of the cost. Part B premiums are set at \$96.40 per month for most beneficiaries, with a sliding scale up to \$238.40 for those with high incomes. Care at skilled nursing facilities is not covered by Medicare for the first 20 days; in days 21 to 100, Medicare will cover \$256 per day. Medicare beneficiaries must also pay 20% of the Medicare allowable costs for services covered under Part B, which can be considerable in the case of a major illness such as cancer.<sup>15</sup>

*Medicaid (Title XIX).* Medicaid is a federally aided, state-operated and administered program that provides benefits for certain indigent or low-income persons in need of health and medical care. The program, authorized by Title XIX of the Social Security Act, is basically for the poor. It does not cover all of the poor, however, but only persons who meet specified eligibility criteria.<sup>16</sup> Eligible groups include low-income children, families, and pregnant women; elderly and disabled people who need long-term care services; and low-income elders who need assistance with the costs of Medicare coverage. Within broad federal guidelines, states establish their own eligibility standards; determine the type, amount, duration, and scope of services; set the payment rate for services; and administer their own programs. Thus, each state's Medicaid program is unique.<sup>14</sup>

In 1997, the SCHIP was established by Congress to expand coverage to uninsured low-income children. States were allowed to expand income-eligibility levels and receive enhanced matching funds for children by either expanding their Medicaid programs or creating new programs separate from Medicaid. All 50 states and the District of Columbia have implemented SCHIP programs, although the extent of coverage varies.<sup>17</sup> As a result of SCHIP and other programs, as of 2001, almost all children from

families with incomes below 200% of the federal poverty level are eligible for either Medicaid or SCHIP. Medicaid and SCHIP insurance are important sources of coverage for children with cancer. Based on the NCDB, approximately 25% of children under age 18 years diagnosed with cancer are covered by Medicaid and SCHIP programs (A.S., written communication, October 31, 2007).

Consistent with the emphasis of the Medicaid program on providing health care to eligible children and families with children, the probability of having Medicaid coverage is highest for children under age 18 years and higher for women than men (Figure 3). The proportion of adults aged 45 to 64 years with Medicaid coverage ranges from 5% for White men to 15% among African American and Hispanic women.<sup>18</sup> A recent study found that only 8% of uninsured childless adults were eligible for Medicaid or Medicare assistance.<sup>18</sup>

In most states, people who develop serious illnesses, including cancer, can qualify for Medicaid even if their income is higher than the state Medicaid eligibility limit. To qualify for Medicaid as medically needy, individuals or families may be required to "spend down" to Medicaid eligibility by offsetting their excess income with medical and/or remedial care expenses.<sup>14</sup>

The Breast and Cervical Cancer Prevention and Treatment Act, enacted in February 2000, permits states to provide medical assistance through Medicaid to eligible women who are screened through the National Breast and Cervical Cancer Early Detection Program. All of the states are participating in this program.<sup>19</sup> However, it is estimated that only 13.2% of eligible women received a mammogram in 2002/2003<sup>20</sup> due in part to inadequate funding of the program. There are also differences in implementation of the Breast and Cervical Cancer Prevention and Treatment Act between states, which may limit opportunities for some women to benefit from the program.<sup>21</sup>

*Private, Nongroup Health Insurance.* Individuals and families who do not have health insurance coverage through their employers or public programs may seek coverage under the individual (nongroup) insurance market. Less than 5% of US adults under age 65 years have this type of insurance, in part because the premiums are much

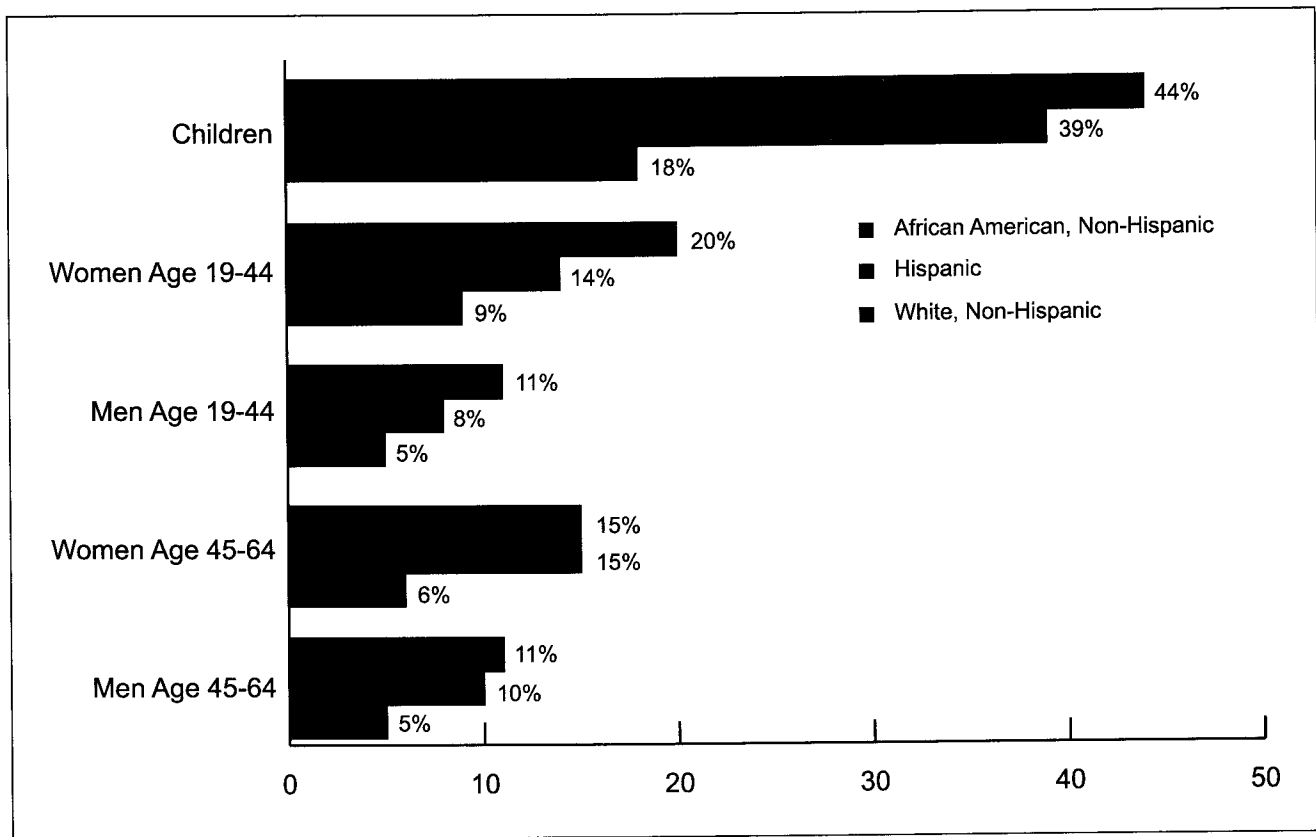


FIGURE 3 Medicaid Coverage of the Nonelderly by Age, Sex, and Race/Ethnicity, 2005.

Reference: Kaiser Family Foundation.<sup>18</sup>

Source of Data: Current Population Survey, March 2005.

higher than those for employer-sponsored insurance.<sup>9</sup> A survey of older adults (aged 50 to 70 years) in 2004 found that more than half (54%) of people with private nongroup insurance paid more than \$3,600 per year for individual policies, and 26% paid more than \$6,000 per year.<sup>22</sup> Private nongroup insurance can be difficult to obtain or extremely costly for individuals with pre-existing health conditions and, therefore, is not a viable option for many Americans who lack employer-sponsored coverage.

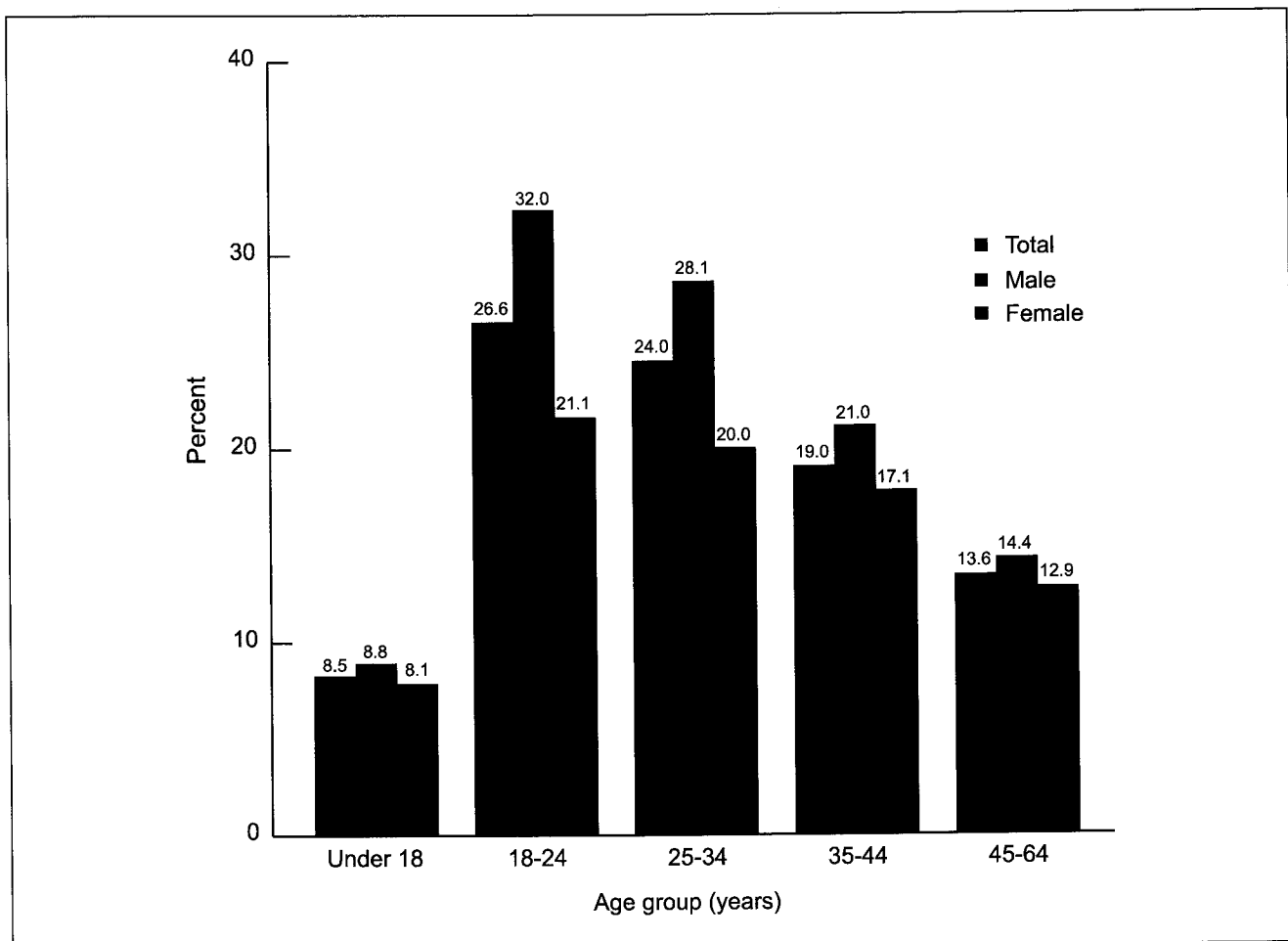
#### Demographic Determinants of Insurance Status

Almost everyone is at some risk of being uninsured. However, the risk of being uninsured varies by age, gender, race/ethnicity, and poverty status, as well as by other characteristics. Among individuals under age 65 years, those under age 18 years have the lowest and those aged 18 to 24 years have the highest probability of being

uninsured (Figure 4).<sup>23</sup> Fourteen percent of people aged 45 to 64 years are uninsured. The probability of being uninsured varies inversely to income, but increased from 2001 to 2005 at all income levels (Figure 5).<sup>24</sup> African Americans, Hispanics, Asian American/Pacific Islanders, and American Indian/Alaska Natives are much more likely to be uninsured than non-Hispanic Whites (Figure 6). The most important reason why working individuals are uninsured is that their employers do not offer them health insurance benefits.<sup>25</sup> Lack of employer-based health insurance is common for workers in small companies, low-wage workers, and part-time workers, as well as the self-employed.<sup>24</sup> When employees are offered coverage by their own employer, uptake rates are generally over 80%.<sup>25</sup>

There are numerous ways in which individuals or families can lose their health insurance. For example, an individual may lose or leave a job where insurance was offered; lose Medicaid





**FIGURE 4** Percentage of Persons Under Age 65 Years Without Health Insurance Coverage at the Time of Interview by Age Group and Sex, January to March, 2007.

Reference: Cohen RA, Martinez ME.<sup>23</sup>

Source of Data: Family Core component of the 2007 National Health Interview Survey. Data are based on household interviews of a sample of the civilian noninstitutionalized population.

eligibility when they or their children grow up; lose insurance through their spouse due to separation, divorce, or death; or be priced out of the market when the cost of premiums becomes unaffordable.<sup>12</sup> Parental health insurance coverage of children who are not students ends at age 18 years, as does coverage for many children insured under Medicaid/SCHIP. Employer-based coverage sometimes fails to protect families from large medical expenses because illness may lead to job loss and the consequent loss of coverage.<sup>26</sup>

Health insurance generally does not provide total dollar coverage of health care costs. Covered services, deductibles, copays, and yearly or lifetime caps can vary considerably among the types

of insurance that are available. Caps on total lifetime coverage or disease-specific coverage (eg, \$1,000,000) may be exceeded if protracted, expensive medical care is needed. Almost everyone is at risk of being underinsured in the event of a major illness, but many individuals and families are underinsured even without experiencing a major illness. The underinsured include people who have some form of health insurance but lack coverage for certain procedures or cannot afford the cost sharing associated with covered benefits or both.<sup>27</sup> One common definition is that a person or family is underinsured if they would have to spend more than 10% of family income on out-of-pocket medical expenses in the event of a catastrophic illness.<sup>28</sup>

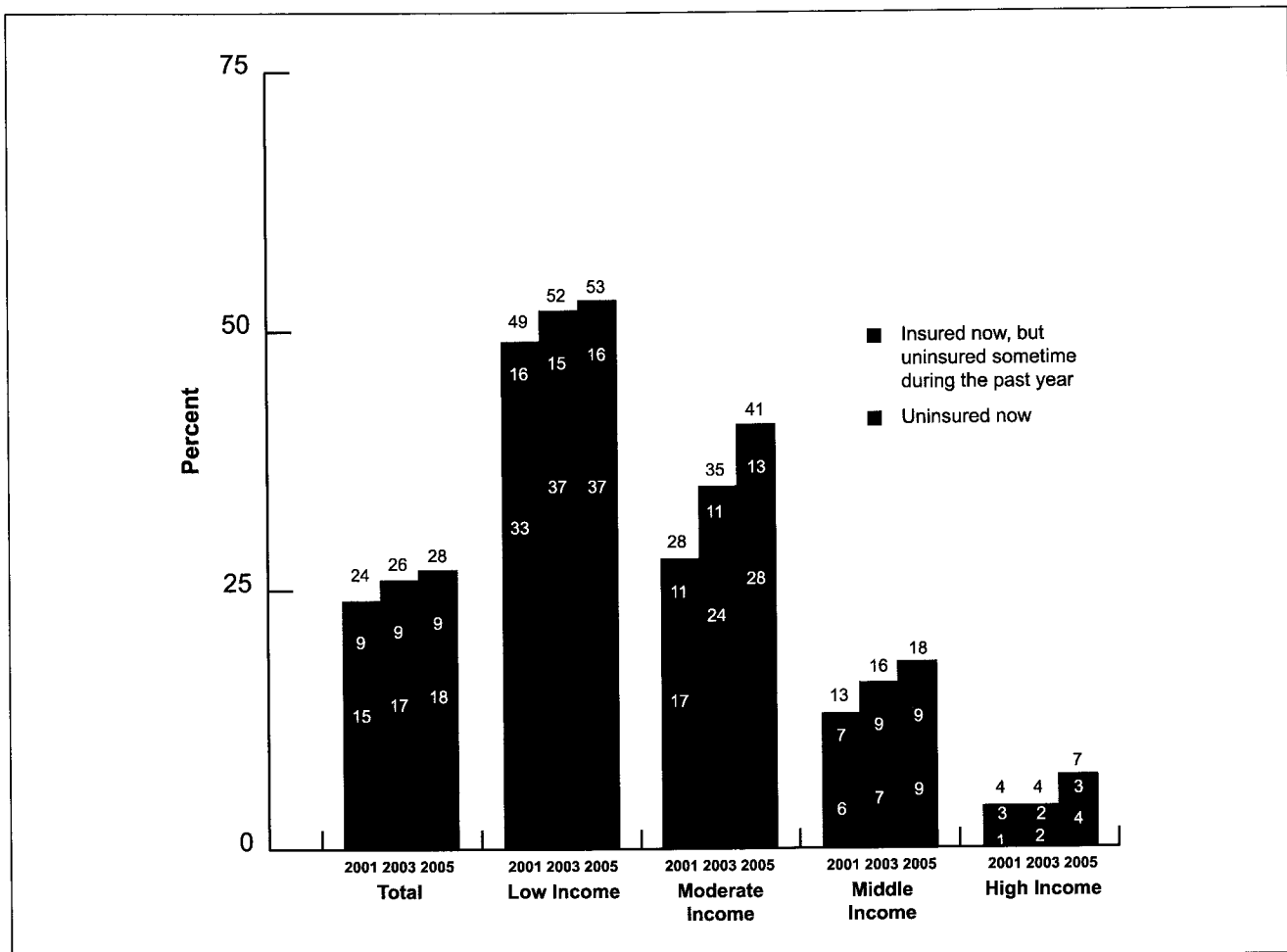


FIGURE 5 Uninsured Rates Among Adults Aged 19 to 64 Years by Income Level, 2001 to 2005.

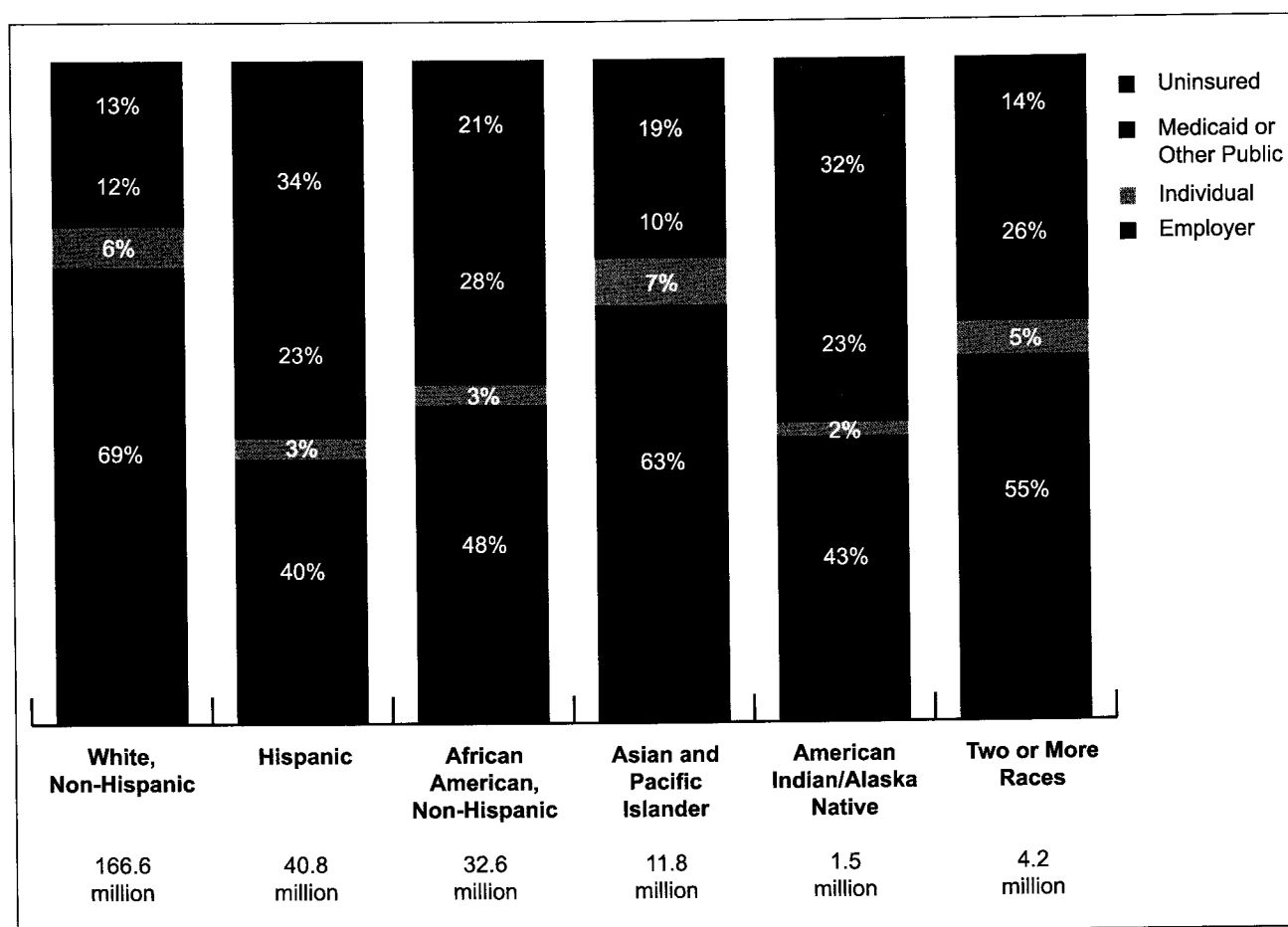
Note: Income refers to annual income. In 2001 and 2003, low income is <\$20,000, moderate income is \$20,000-\$34,999, middle income is \$35,000-\$59,999, and high income is \$60,000 or more. In 2005, low income is <\$20,000, moderate income is \$20,000-\$39,999, middle income is \$40,000-\$59,999, and high income is \$60,000 or more.

Reference: Collins SR, Davis K, Doty MM, et al.<sup>24</sup>

Source of Data: The Commonwealth Fund Biennial Health Insurance Surveys (2001, 2003, and 2005).

A recent study analyzed data from the Medical Expenditure Panel Surveys sponsored by the Agency for Health Care Research and Quality for 1996 and 2003.<sup>28</sup> The Medical Expenditure Panel Surveys household survey collects detailed information on health insurance coverage, health care utilization, and expenditures by sources of payment and additional data on health status, medical conditions, and other sociodemographic variables. Household reports are supplemented with information on third-party payments and billing codes from medical provider billing records. Sample sizes for persons under age 65 years were 19,022 persons in 1996 and 28,970 persons in 2003.<sup>28</sup> According to this study, the

prevalence of being underinsured (having out-of-pocket health care expenditures, excluding health insurance premiums, greater than 10% of after-tax family income) increased from 6.7% of the nonelderly population in 1996 to 8.5% by 2003. When the costs of insurance premiums were included, the percentage of the population with health care expenditures exceeding 10% of after-tax income rose from 15.8% in 1996 to 19.2% in 2003. As a result of high premiums, copayments and deductibles, and lifetime-maximum insurance payment limits, persons with private nongroup plans face significantly greater risk of high financial burden than individuals with private employment-related



**FIGURE 6** Health Insurance Coverage of the Nonelderly by Race/Ethnicity, 2005.

Note: Nonelderly includes individuals up to age 65 years. "Other public" includes Medicare and military-related coverage; SCHIP is included in Medicaid.

Reference: Kaiser Family Foundation.<sup>18</sup>

Source of Data: Current Population Survey, March 2005.

insurance. In 2003, 53.4% of nonelderly persons with nongroup coverage incurred total health care burdens exceeding 10% of family income, a percentage nearly 3 times greater than among those with employment-related coverage.<sup>28</sup> Nearly one-quarter (24%) of the poor (family income <100% of federal poverty line, which was \$18,400 for a family of 4 in 2003) and 10% of the near-poor (family income 100% to <200% of the federal poverty line) reported total health care burdens exceeding 20% of family income. The out-of-pocket burden was particularly great among individuals with serious illness. Among people with cancer, 28.8% had total burdens exceeding 10% of family income, and 11.4% had total burdens exceeding 20% of family income.<sup>28</sup>

Even among the elderly population with Medicare insurance, out-of-pocket health care costs can be considerable. In 2003, among the elderly population, 39.7% had private group coverage and Medicare (14.6 million), 16.3% had private nongroup coverage and Medicare (6 million), 10.2% had Medicare and other public coverage (3.7 million), and 33.8% had Medicare only or Medicare HMO coverage (12.4 million). Of all elderly persons, 29.3% had out-of-pocket spending on medical care in excess of \$5,000, and 7.3% had out-of-pocket spending on medical care in excess of \$10,000. Those with Medicare and private nongroup coverage were the most likely to have high out-of-pocket spending. In this group, 46.4% had family-level spending exceeding \$5,000 compared with 35.1%

of individuals with Medicare and private group coverage.<sup>29</sup>

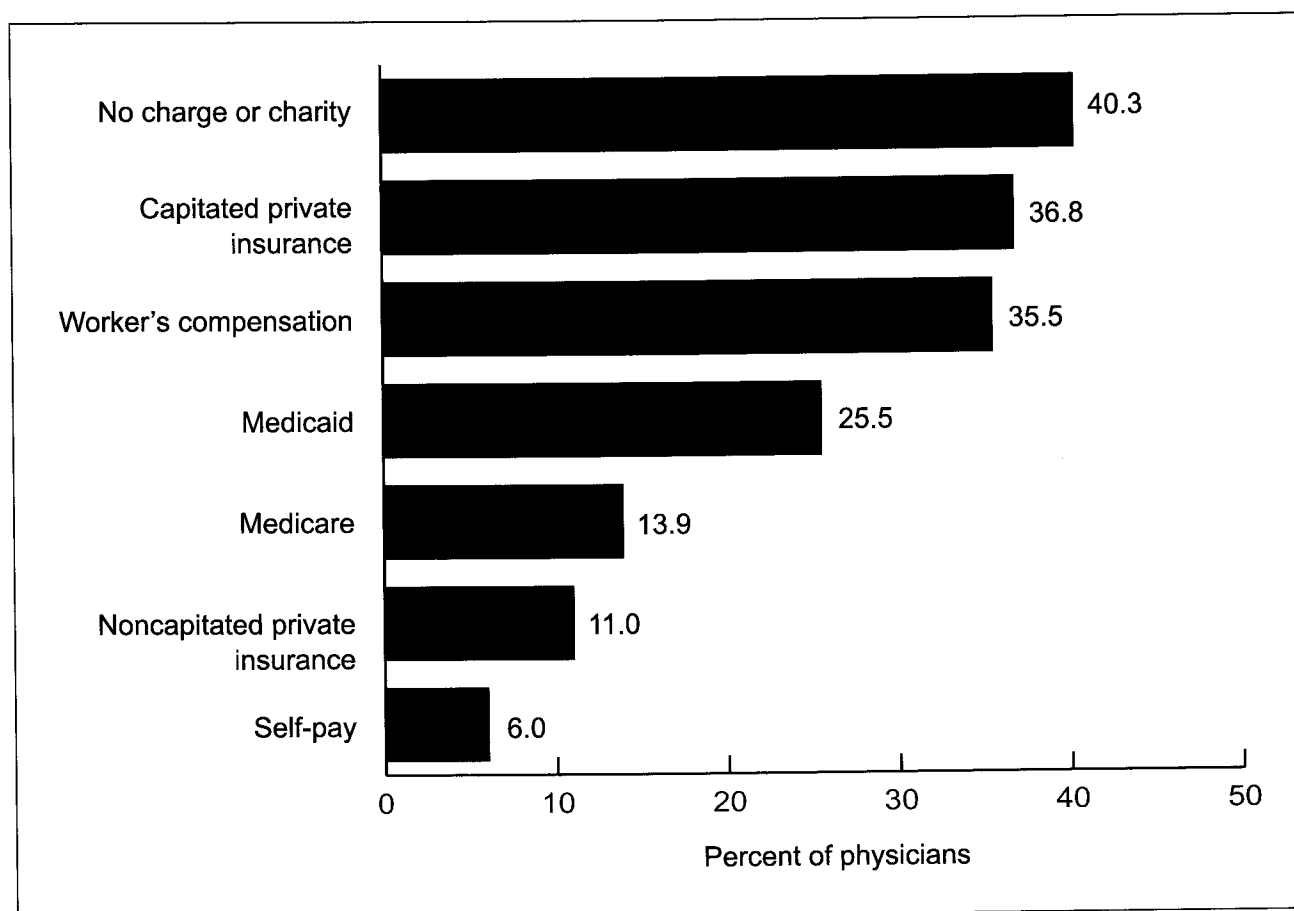
Medical debt is an important cause of bankruptcy filing in the United States. A study of causes of bankruptcy among 931 people who filed for bankruptcy in the United States in 2001 found that about half cited medical causes as an important reason for bankruptcy. Three-fourths of those with medical debt were insured at the onset of the bankrupting illness; 60.1% had private coverage, 5.7% had Medicare, 8.4% had Medicaid, and 1.6% had veterans/military coverage. About one-third of individuals who had private insurance at the onset of their illness lost coverage during the course of their illness. On average, the mean out-of-pocket expenditure for all debtors citing medical expenses for bankruptcy was \$11,854. For debtors citing cancer as the medical condition associated with the bankruptcy, it was \$35,878.<sup>26</sup> Compounding the financial consequences for individuals and families without health insurance are pricing policies in which uninsured patients are charged more for services. In 2004, a survey found that the rates charged to uninsured and other "self-pay" patients for hospital services were often 2.5 times what most health insurers actually paid and more than 3 times the hospital's Medicare-allowable costs.<sup>30</sup> Even the very poor are at risk of medical debt and aggressive debt-recovery practices. A cross-sectional study of patients being seen at 10 safety-net provider sites in Baltimore, Maryland, found that 42% reported that they currently had a medical debt (average \$3,409), and 39.4% reported ever having been referred to a collection agency for a medical debt. The mean annual income of the patients interviewed was \$7,864, and 47.2% reported that they were homeless. Among individuals who had current medical debt or had been referred to a collection agency in the past, 24.5% no longer went to that site for care, 18.6% delayed seeking care when needed, and 10.4% reported "only going to emergency rooms now."<sup>31</sup>

#### **Impact of Health Insurance Status on Access to Care**

Individuals who are uninsured, underinsured, or insured by government programs may face

significant barriers to obtaining health care. Some private physicians do not accept new patients unless they have private insurance or are able to pay the full cost at the time of the visit. For example, a recent national survey of office-based physicians found that although 96% were accepting new patients, 40.3% did not accept "no charge" or charity patients, 25.5% did not accept Medicaid patients, and 13.9% did not accept patients covered by Medicare (Figure 7).<sup>32</sup> Patients who are unable to afford outpatient care in private practice settings often seek care in emergency departments, which are required by law only to examine patients to determine whether a medical emergency exists.<sup>33</sup> Consequently, many patients initially seen in emergency departments are referred to outpatient providers for follow-up care, but uninsured or Medicaid-insured patients may be excluded from care by the system. A recent study employed scripted interviewers to contact clinics stating that they had been seen in a community emergency room the previous night and were seeking a follow-up appointment for a serious medical condition such as pneumonia or suspected ectopic pregnancy.<sup>34</sup> Callers claiming to have private insurance were almost twice as likely to receive prompt appointments as those stating that they had Medicaid insurance (63.6% versus 34.2%). Uninsured callers who said that they could pay cash for the entire charge at the time of the visit were equally likely to receive an appointment as those with private insurance, while only 25.1% of uninsured individuals who offered to pay \$20 at the time of the visit were offered appointments.

As more Americans go without health insurance and access to affordable health care decreases, millions of Americans turn to the health care "safety net" for their health care needs. At the core of the safety net are health centers, public hospital systems, and local health departments. In addition, some communities are served by school- and church-based health clinics, private physicians, and nonprofit hospitals committed to serving vulnerable patients. Although such programs provide lifesaving services, some are understaffed, have inadequate resources, and are unable to provide specialty care. Recent studies suggest that the resources available in the health care "safety net" are declining even as the need is growing.<sup>33</sup>



**FIGURE 7** Percentage of Office-based Physicians Not Accepting New Patients According to Method of Payment, 2003 to 2004.

Source: Hing E, Burt CW.<sup>32</sup>

In addition, although poverty is increasing in both urban and suburban neighborhoods, particularly in Midwestern and Southern metropolitan areas, there has been a shift in where the largest concentrations of poverty exist. The poor are increasingly moving to suburban and rural areas to find jobs and affordable housing as economic forces make cities less affordable. This demographic shift may lead to a disconnect between where poor people live and where they are able to find safety-net health clinics and hospitals because these services are disproportionately concentrated in central-city neighborhoods.<sup>35</sup>

#### Impact of Health Insurance Status on Cancer

Lack of access to health care can adversely affect cancer incidence and mortality throughout the continuum from cancer prevention and

early detection to treatment, survivorship, and palliative care. Lack of health insurance, even for intermittent periods, is associated with lower likelihood of having a “medical home” or usual source of health care. Such individuals are less likely to have preventive care and to have adequate management for chronic conditions. Based on NHIS 2006, 53.6% of uninsured individuals aged 18 to 64 years had no usual source of health care compared with 9.9% of privately insured and 10.8% of individuals with Medicaid insurance. Among individuals who had been uninsured for >12 months, 58.7% had no usual source of care (Table 1). Individuals who were uninsured at the time of the interview were more likely than insured individuals to report that they did not get care due to cost, delayed care due to cost, did not get prescription drugs due to cost, and had no health care visits in the past 12 months

**TABLE 1** Access to Healthcare and Preventive Services by Health Insurance Status in Adults Aged 18 to 64 Years, 2006

Proportion (%)	All	Private	Medicaid	Uninsured (at Time of Interview)	Uninsured for >12 Months
Have no usual source of care	18.9	9.9	10.8	53.6	58.7
Did not get care due to cost	8.4	3.8	10.3	22.8	24.4
Delayed care due to cost	10.7	6.1	11.1	25.8	27.1
Did not get prescription drugs due to cost	9.3	4.4	15.2	22.9	23.1
Had no health care visits in the past 12 months	21.6	16.6	12.5	43.2	49.0
<b>Counseling by a health care provider*</b>					
Smokers advised to quit†	58.2	58.1	67.0	50.4	48.2
Obese adults (BMI>30) advised to lose weight‡	51.7	53.9	51.2	40.3	35.6

\*Among individuals with at least one health care visit in the past 12 months.

†Adults who reported that they were advised to quit using tobacco by a health care provider in the past 12 months; information available only in NHIS 2005.

‡Adults who reported that they were advised to control or lose weight by a doctor or health professional in the past 12 months. Source: National Health Interview Survey Public Use Data File 2005, 2006, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006, 2007.

due to cost (Table 1). Patients with Medicaid were more likely than privately insured patients to have no usual source of care but less likely to report no health care visits in the past 12 months. Medicaid-insured patients were more likely to report that they did not get care due to cost, delayed care due to cost, or did not get prescription drugs due to cost compared with privately insured patients. However, for all of these measures of access to care, patients with Medicaid insurance reported much greater access than those who were uninsured.

**Cancer Prevention.** Smoking, poor nutrition, and physical inactivity are important risk factors for cancer. Health care encounters provide an opportunity for providers to counsel individuals on tobacco use, nutrition, and physical activity and provide support for tobacco cessation and weight loss. However, individuals who are uninsured are much more likely to report no health care encounters in the past year than those who are Medicaid-insured or privately insured (Table 1). Among those who did have a health care encounter, the uninsured were less likely than privately or Medicaid-insured individuals to be advised to quit smoking or to lose weight (Table 1). An analysis of data from an earlier (2000) NHIS survey found that individuals with

no insurance or with Medicaid insurance were less likely to use tobacco cessation aids in a quit attempt during the past year.<sup>36</sup>

**Early Detection and Screening.** Analyses of the NHIS and the Behavioral Risk Factor Surveillance Survey have consistently found that individuals without health insurance have lower rates of cervical, breast, and colorectal cancer screening than individuals with health insurance.<sup>37–39</sup> A few studies reported screening rates for Medicaid-insured patients that were lower than those for privately insured patients, but higher than for uninsured patients.<sup>40,41</sup> Studies of individuals aged 65 years and over, using other surveys and data sources, found that individuals who were dually insured by Medicare and Medicaid or uninsured were less likely to receive cancer screening tests than comparison groups (those with Medicare alone or those with Medicare plus supplemental private insurance, depending on the study).<sup>41–43</sup>

Analyses of the NHIS 2005 survey also find that the likelihood of receiving recommended cancer screening tests varies markedly by insurance status (Table 2). About three-quarters (74.5%) of women aged 40 to 64 years who had private health insurance had received a mammogram in the past 2 years compared with 56.1% of women

TABLE 2 Cancer Screening by Health Insurance Status in Adults, 2005

Proportion (%)	All	Private	Medicaid	Uninsured (at Time of Interview)	Uninsured for >12 Months
Women aged 40 to 64 years who had a mammogram in the past 2 years	67.9	74.5	56.1	38.1	32.9
Women aged 18 to 64 years who had a Pap test in the past 3 years	83.6	87.9	82.5	68.0	62.7
Adults aged 50 to 64 years who had a colorectal cancer screening test*	44.2	48.3	39.6	18.8	14.9
Men aged 50 to 64 years who had a prostate-specific antigen test in the past year	33.5	37.1	20.8	14.0	11.5

\*Had a fecal occult blood test in the past year or an endoscopy in the past 10 years.

Source: National Health Interview Survey Public Use Data File 2005, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

with Medicaid insurance and 38.1% of uninsured women. Similarly, 87.9% of women who had private health insurance had a Pap test in the past 3 years compared with 82.5% of women with Medicaid insurance and 68% of uninsured women. Among men and women aged 50 to 64 years with private insurance, 48.3% had had a recommended colorectal cancer screening test in the past 10 years compared with 39.6% of individuals with Medicaid insurance and only 18.8% of those who were uninsured. The percentage of men aged 50 to 64 years who had a prostate-specific antigen test for prostate cancer followed a similar pattern: 37.1% among the privately insured, 20.8% among Medicaid-insured, and 14% among the uninsured.

Given that health insurance status is associated with other sociodemographic characteristics, such as race/ethnicity, immigration status/country of birth, and level of education, it is possible that differences in screening rates reflect differences in knowledge about cancer prevention, culture, or other barriers to care. However, when data from the NHIS 2005 are analyzed to estimate the likelihood of receiving mammography and colorectal cancer screening by race/ethnicity (non-Hispanic White, non-Hispanic African American, and Hispanic), level of education, and insurance status (Figure 8 and Figure 9), it is apparent that having health insurance is an important predictor of screening across all major racial and ethnic populations. Moreover,

at every level of education, individuals with health insurance are about twice as likely as those without health insurance to have had mammography or colorectal cancer screening.

*Stage at Diagnosis and Survival.* Information on the relationship between stage at diagnosis and insurance status is quite limited because population-based cancer incidence registries do not collect information on insurance status. Several studies have examined the relationship between Medicaid enrollment status and stage at diagnosis by matching cancer registry data with state-based Medicaid records. One such study based on linkage of State of Michigan Medicaid and cancer registry records found that Medicaid-insured patients under age 65 years who were diagnosed with cancer during 1996 to 1998 were more likely to be diagnosed with late-stage cancer of the breast, uterus, cervix, lung, and prostate than patients without Medicaid coverage (including uninsured and privately insured).<sup>44</sup> However, this study could not differentiate among patients who were enrolled in Medicaid before their diagnosis from those enrolled as a result of diagnosis. Later stage at diagnosis among patients enrolled as a result of diagnosis does not reflect the extent to which Medicaid insurance provides access to care, including prevention and early detection. A subsequent study in the Michigan registry Medicaid-linked data found that for cancer cases diagnosed in 1996 and 1997, 64% were enrolled before

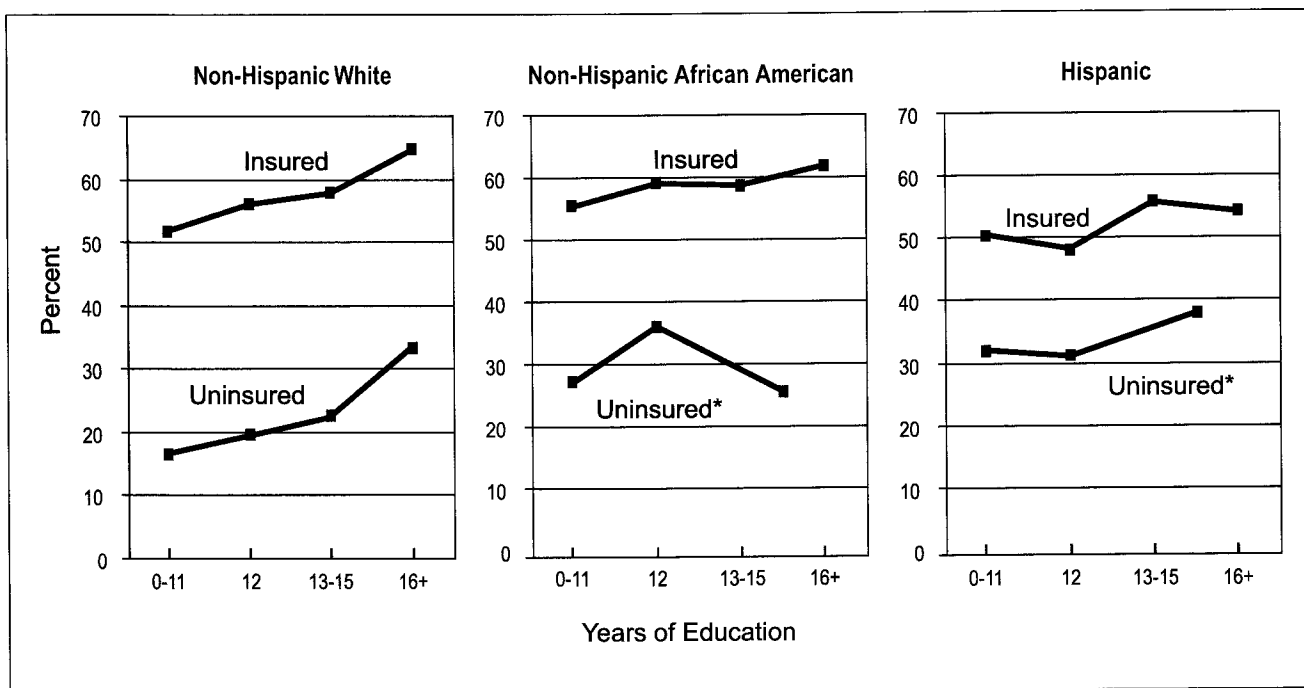


FIGURE 8 Mammogram Within the Last Year, Women Aged 40 to 64 Years, by Race/ Ethnicity, Years of Education, and Insurance Status, 2003 to 2005.

\*Groups have been combined (years of education 13+) due to small sample sizes.

Source: National Health Interview Survey 2003 and 2005, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

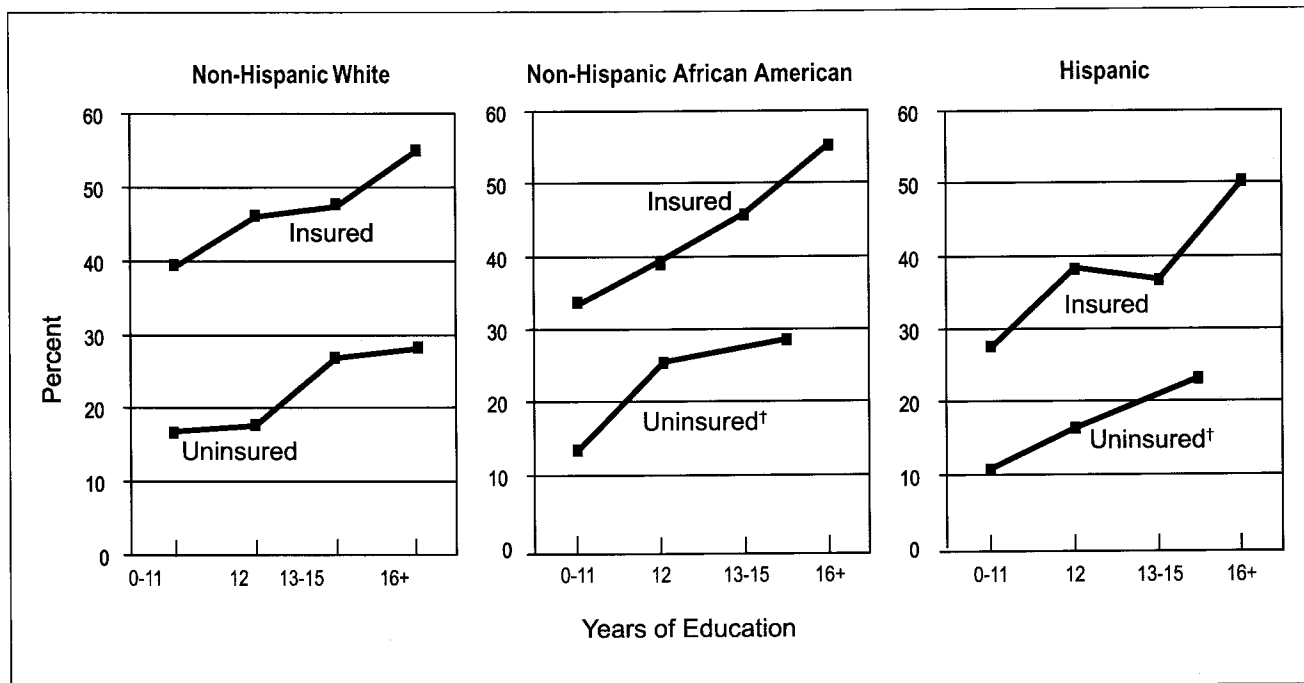


FIGURE 9 Colorectal Cancer Screening\*, Ages 50 to 64 Years, by Race/Ethnicity, Years of Education, and Insurance Status, 2003 to 2005.

\*Either a fecal occult blood test within the past year or an endoscopy within the past 10 years.

†Groups have been combined (years of education 13+) due to small sample sizes.

Source: National Health Interview Survey 2003 and 2005, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.



being diagnosed with cancer; just over one-third of the Medicaid sample enrolled the same month or after diagnosis. A higher percentage of colorectal and lung cancer patients were enrolled the same month or after diagnosis (46% and 42%, respectively).<sup>45</sup> In this study, the odds of later stage at diagnosis were higher among individuals who were enrolled in Medicaid during the month of or after diagnosis compared with those with longer-term enrollment before diagnosis, but the latter group had increased odds of late stage compared with those without Medicaid insurance (the majority of whom would be expected to be privately insured).<sup>45</sup> A further study of the same population found that both pre-enrolled and late-enrolled Medicaid patients were at substantially increased risk of dying within 8 years of diagnosis compared with patients who were not Medicaid-enrolled; although survival was somewhat poorer in the late-enrolled compared with the pre-enrolled, this difference was not statistically significant.<sup>46</sup> A study of stage at diagnosis for cervical cancer patients diagnosed in California in 1996 to 1999 found that women insured by Medicaid were significantly more likely than women without Medicaid coverage (including uninsured and privately insured) to be diagnosed at late stage.<sup>47</sup> However, when risks were analyzed by duration of Medicaid enrollment, increased risk of late-stage diagnosis was confined to those enrolled at the time of or less than 12 months before diagnosis and was not apparent for those who had been enrolled in Medicaid for 12 or more months. A study linking data from the Florida State cancer registry with inpatient and outpatient discharge abstracts to ascertain insurance status found that persons who were uninsured were more likely to be diagnosed with late-stage breast, colorectal, and prostate cancer, and melanoma and that patients who were Medicaid-insured were more likely to be diagnosed with late-stage breast cancer and melanoma. This study could not examine duration of Medicaid enrollment before diagnosis.<sup>2</sup>

The NCDB, a registry containing information about cancer patients treated at over 1,500 Commission on Cancer-approved facilities in the United States, has collected information on patient insurance status at the time of diagnosis since 1996. Several recent studies have used this

database to examine the relationship between insurance status and stage at diagnosis. Patients diagnosed with oropharyngeal and laryngeal cancer from 1996 to 2003 who were uninsured or covered by Medicaid were significantly more likely to be diagnosed with late-stage and larger tumors.<sup>3,4</sup> Another study of breast cancer patients diagnosed from 1998 to 2003 and included in the NCDB found that women who were uninsured or had Medicaid insurance were about 1.5 times more likely to be diagnosed with Stage II versus Stage I and 2.5 times more likely to be diagnosed with Stage III/IV versus Stage I disease than those with private insurance.<sup>5</sup>

Data from the NCDB were also used to investigate the relationship between insurance status, stage at diagnosis, and survival. These analyses were restricted to patients diagnosed in 1999 and 2000, the most recent years of diagnosis for which at least 5 years of vital status follow up is available. Survival analyses controlled for age at diagnosis, race/ethnicity, sex, and area-based income. In addition, for cancer sites where American Joint Committee on Cancer staging is used, analyses were performed with and without control for stage at diagnosis to better understand how much of the survival differences by insurance status could be explained by differences in stage at diagnosis.

In analyses of cancer survival for all cancer sites combined, patients who were uninsured and those who were Medicaid-insured at the time of diagnosis were 1.6 times as likely to die in 5 years as those with private insurance (Figure 10). More detailed analyses were done for breast and colorectal cancers, 2 important cancers for which both early detection and quality of treatment are known to influence survival.

Figure 11 shows the stage distribution of breast cancer cases diagnosed among White, African American, and Hispanic women in 1999/2000. In each racial/ethnic group, patients with private insurance were more likely to be diagnosed with Stage I breast cancer and less likely to be diagnosed with Stage III and IV cancer than those who were uninsured or had Medicaid insurance. Breast cancer survival for all stages combined was also associated with insurance status (Figure 12). Among White patients with private insurance, 89% survived 5 years compared

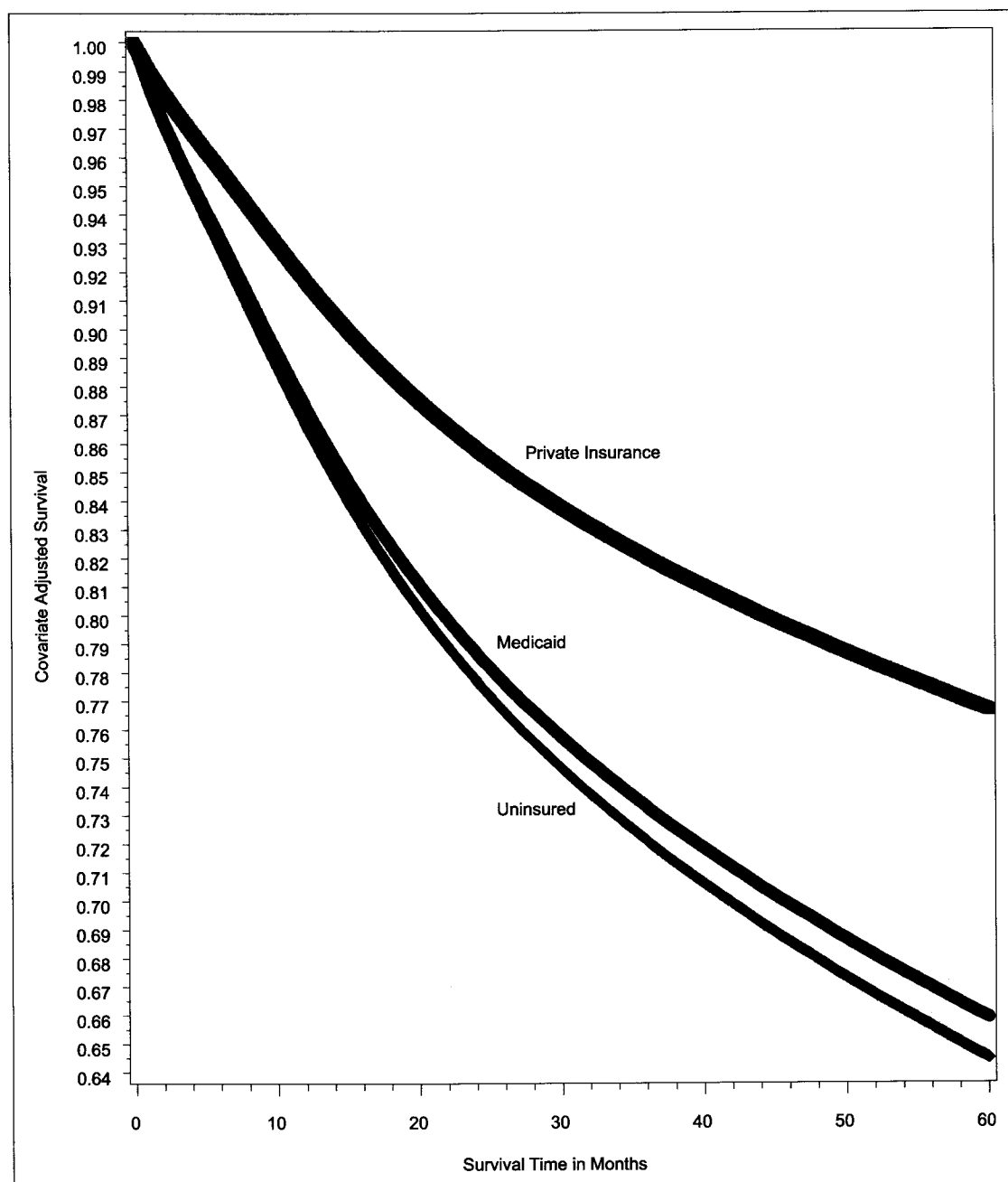
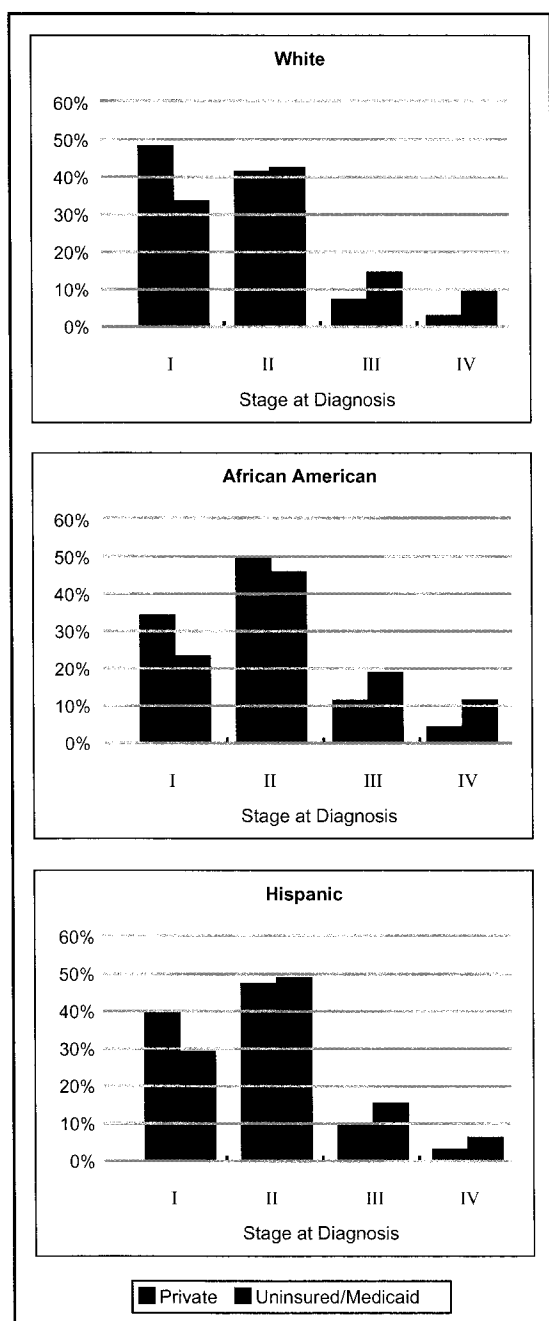


FIGURE 10 Cancer Survival by Insurance Status\*.

\*Patients aged 18 to 64 years diagnosed from 1999 to 2000; excluded from the analysis: unknown stage; race/ethnicity other than White, African American, or Hispanic; missing information on stage, age, race/ethnicity, or zip code. Covariates included in the model are age, race, sex, and zip code-based income. Data Source: National Cancer Data Base.

with 76% of patients who were uninsured or had Medicaid insurance; among African American women with private insurance, 81% survived 5 years compared with 65% of uninsured patients and 63% of Medicaid-insured patients. Among Hispanic patients with private insurance, 86% survived 5 years compared with 83% who were

uninsured and 76% of those with Medicaid insurance. Stage-specific survival for breast cancer patients is depicted in Figure 13, with solid lines representing the survival experience of patients with private insurance and dotted lines representing the survival experience of patients who were uninsured or had Medicaid insurance in each



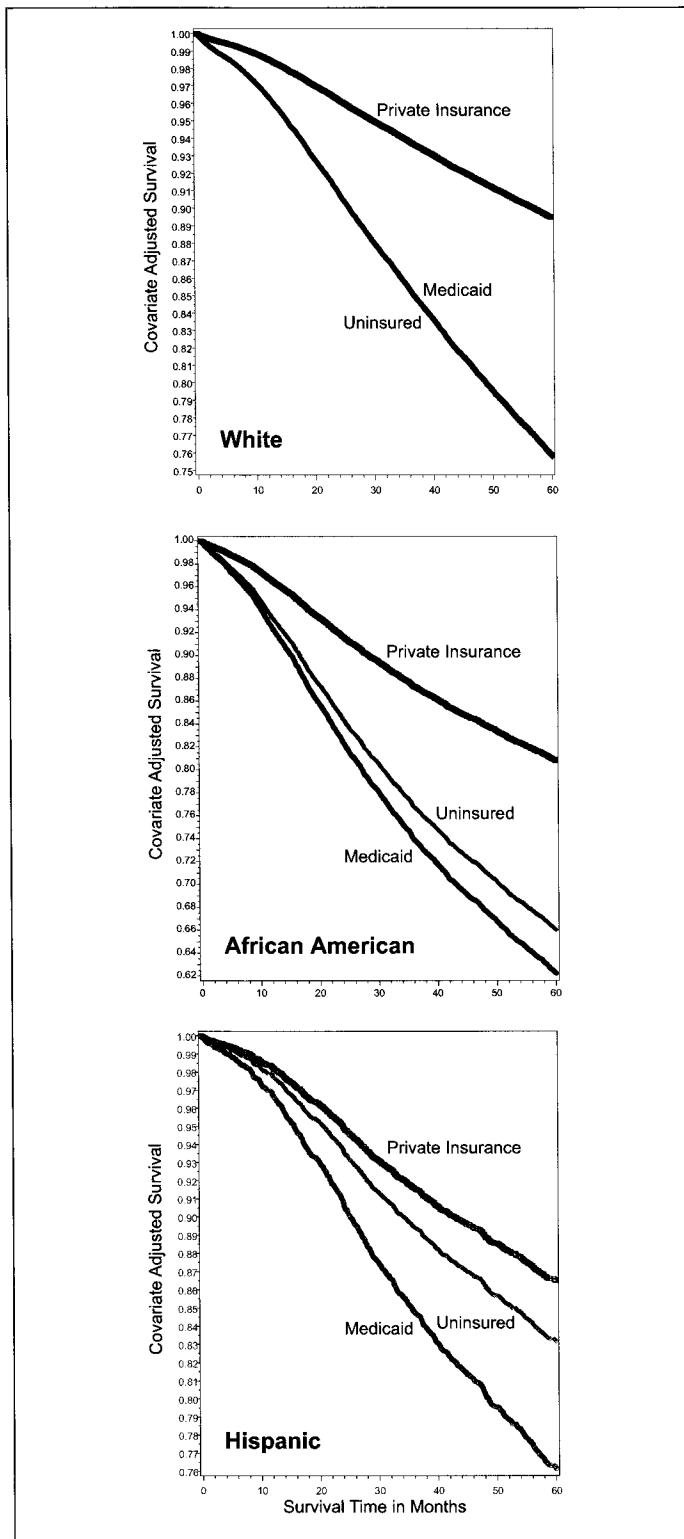
**FIGURE 11** Breast Cancer Stage Distribution by Race and Insurance Status\*.

\*Patients aged 18 to 64 years diagnosed from 1999 to 2000; excluded from the analysis: unknown stage; race/ethnicity other than White, African American, or Hispanic; missing information on stage, age, race/ethnicity, or zip code. Data Source: National Cancer Data Base.

racial and ethnic group (Figure 13). Although insurance status was an important predictor of survival within stage, in each stage and insurance group, African American patients had lower survival than White patients.

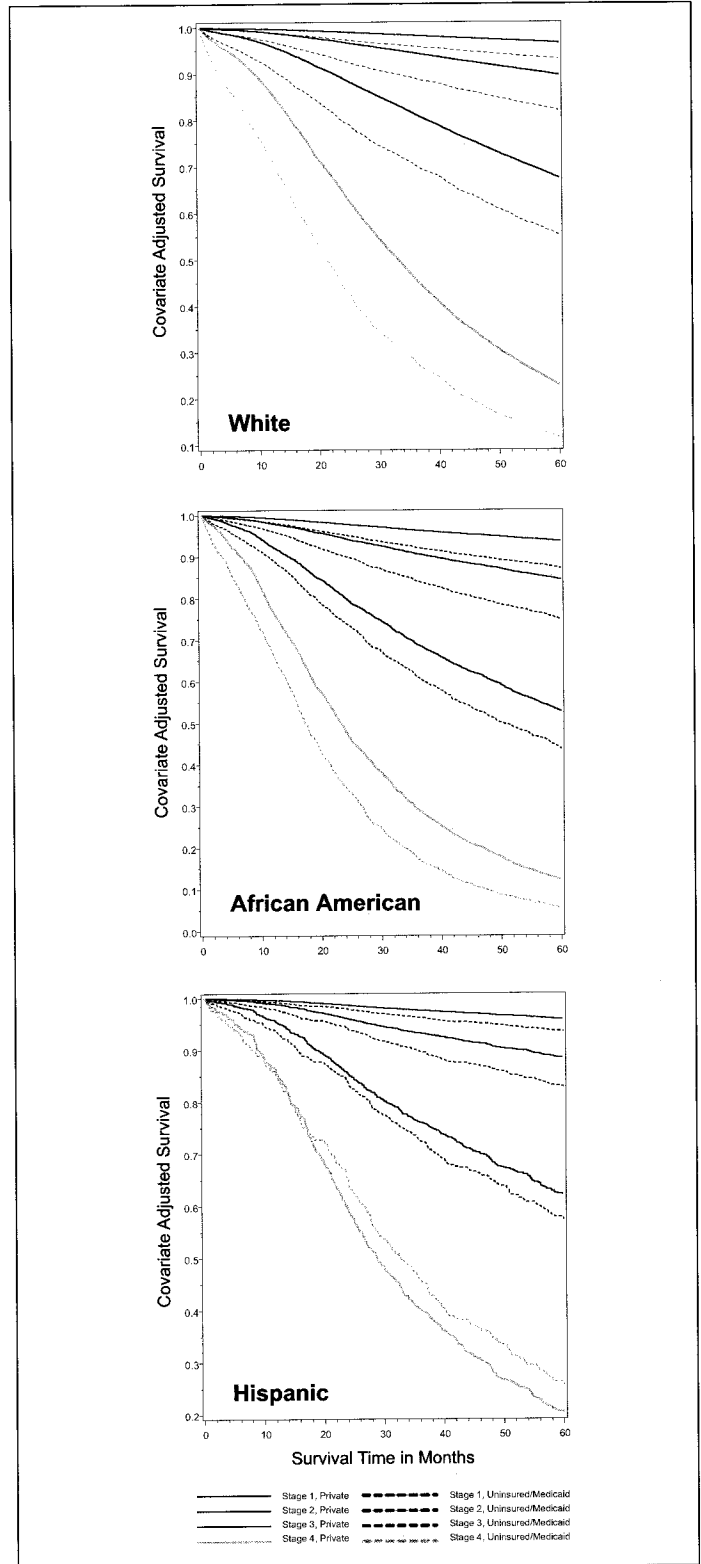
Figure 14 shows the stage distribution of colorectal cancer cases diagnosed among White, African American, and Hispanic patients in 1999 and 2000. In each racial/ethnic group, patients with private insurance were more likely to be diagnosed with Stage I colorectal cancer and less likely to be diagnosed with Stage IV colorectal cancer than those who were uninsured or had Medicaid insurance. Survival for all stages combined was also associated with insurance status (Figure 15). Among White patients with private insurance, 66% survived 5 years compared with 50% of patients who were uninsured and 46% of those with Medicaid insurance; among African American patients with private insurance, 60% survived 5 years compared with 41% of uninsured patients and Medicaid-insured patients; among Hispanic patients, 63% of those with private insurance survived 5 years compared with 57% of those who were uninsured and 53% of those with Medicaid insurance. Stage-specific survival for colorectal cancer patients is depicted in Figure 16, with solid lines representing the survival experience of patients with private insurance and dotted lines representing the survival experience of patients who were uninsured or had Medicaid insurance in each racial and ethnic group. For both White and African American patients, privately insured patients with Stage II disease had better survival than patients who were Medicaid-insured or uninsured who had Stage I disease, and privately insured patients with Stage III disease had similar survival to Medicaid-insured or uninsured patients with Stage II disease. Although insurance status was an important predictor of survival within stage, in each stage and insurance group, African American patients had lower survival than White patients.

The results of the analysis of breast and colorectal cancer survival by insurance status among patients diagnosed in 1999 and 2000 and reported to the NCDB were similar to those of a previous study that examined 3-year cancer survival by insurance status among patients diagnosed in Kentucky from 1995 to 1998 and followed through 1999.<sup>48</sup> The latter study found that 3-year relative survival among breast cancer patients was 90.6% for privately insured patients, 75.5% for patients with Medicaid insurance, and 77.7% among the uninsured. For colorectal cancer patients, 3-year



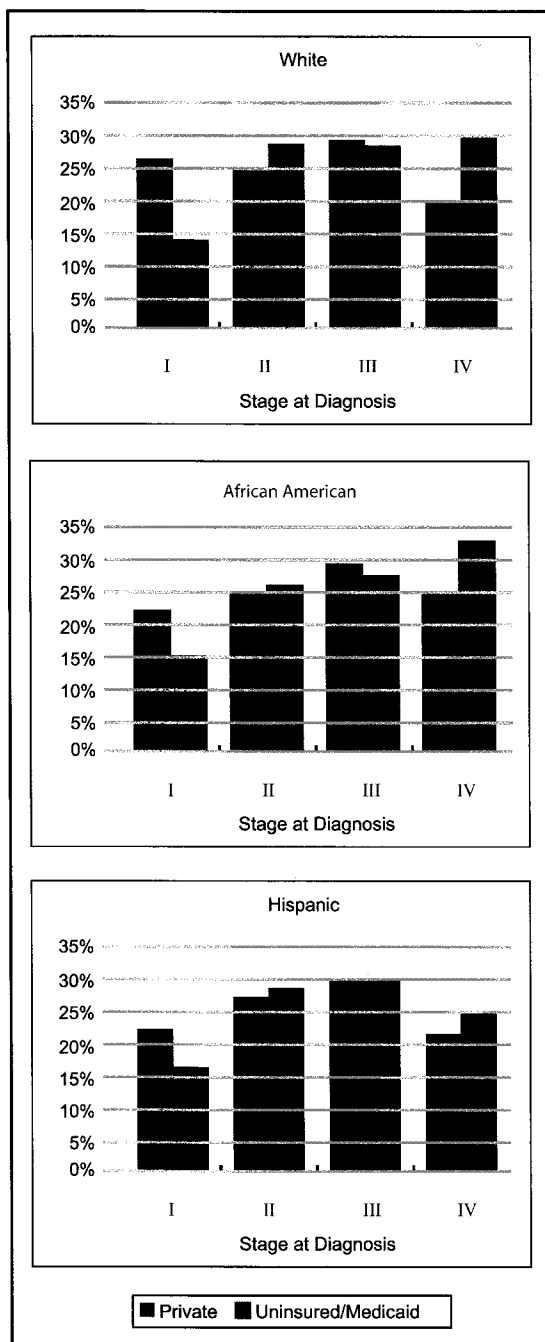
**FIGURE 12** Breast Cancer Survival by Race and Insurance Status\*.

\*Patients aged 18 to 64 years diagnosed from 1999 to 2000; excluded from the analysis: unknown stage; race/ethnicity other than White, African American, or Hispanic; missing information on stage, age, race/ethnicity, or zip code. Data Source: National Cancer Data Base.



**FIGURE 13** Breast Cancer Survival by Stage and Insurance Status\*.

\*Patients aged 18 to 64 years diagnosed from 1999 to 2000; excluded from the analysis: unknown stage; race/ethnicity other than White, African American, or Hispanic; missing information on stage, age, race/ethnicity, or zip code. Data Source: National Cancer Data Base.



**FIGURE 14** Colorectal Cancer Stage Distribution by Race and Insurance Status\*.

\*Patients aged 18 to 64 years diagnosed from 1999 to 2000; excluded from the analysis: unknown stage; race/ethnicity other than White, African American, or Hispanic; missing information on stage, age, race/ethnicity, or zip code.

Data Source: National Cancer Data Base.

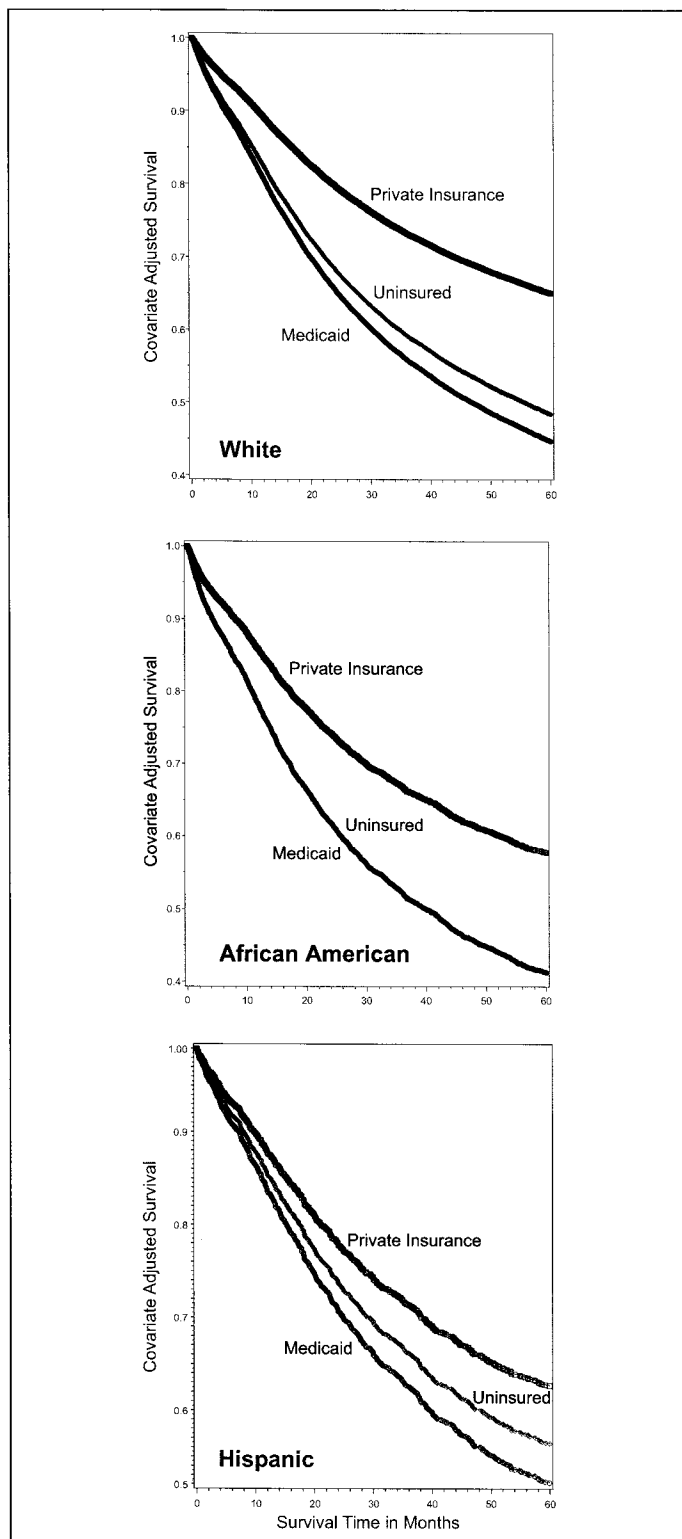
survival was 70.9% for those with private insurance, 53% for those with Medicaid insurance, and 52.8% for those who were uninsured.

Although neither the NCDB analyses nor the Kentucky Registry study were able to control

for sociodemographic factors other than race/ethnicity, sex and age, or for the presence of other health conditions that might impact survival, both studies were able to control for stage, and the NCDB analysis controlled for zip code level of income. In addition, when survival by insurance status was examined using the NCDB for a cancer with very high survival (Stage I and II thyroid cancer), the largest difference in predicted 5-year survival based on differences in insurance status was only 2%. Thus, it does not appear likely that the large differences in survival between insurance groups are accounted for by factors other than those related to diagnosis and treatment of their cancer.

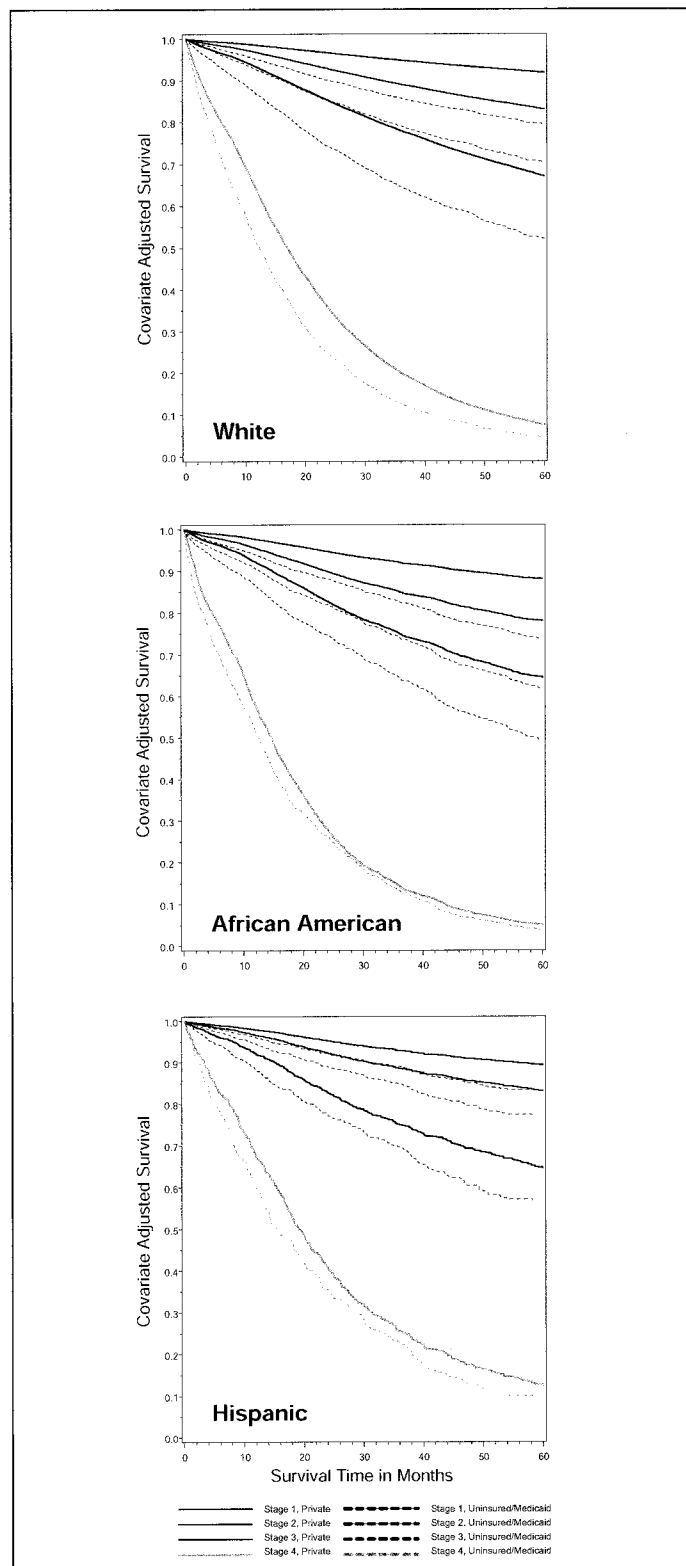
#### Possible Reasons for Associations Between Insurance Type, Stage at Diagnosis, and Survival

Later stage at diagnosis for cervical, breast, colorectal, and prostate cancer among patients who are uninsured or have Medicaid insurance can be explained in part by lower access to and/or utilization of cancer screening. Analyses of NHIS 2005 data presented in this report, as well as prior studies, found that screening rates were substantially lower among uninsured compared with privately insured individuals and that Medicaid-insured patients consistently had screening rates that were lower than those for the privately insured and higher than those for the uninsured. In addition, later stage at diagnosis may be associated with lack of follow up or delay in follow up of abnormal screening test results. A review of studies evaluating follow-up care for an abnormal cancer screening result found that less than 75% of patients received such care and identified barriers to follow up at the provider, patient, and health care system levels.<sup>49</sup> Appropriate follow up of an abnormal screening test requires a number of critical steps where the process can break down. The primary care provider and/or patient must be informed of the abnormal result, the appropriate diagnostic evaluation must be recommended, a provider and site for the diagnostic evaluation must be identified, and the patient must make and keep the appointment. Patients without health insurance and those whose health insurance is not widely accepted face additional cost,



**FIGURE 15** Colorectal Cancer Survival by Race and Insurance Status\*.

\*Patients aged 18 to 64 years diagnosed from 1999 to 2000; excluded from the analysis: unknown stage; race/ethnicity other than White, African American, or Hispanic; missing information on stage, age, race/ethnicity, or zip code. Data Source: National Cancer Data Base.



**FIGURE 16** Colorectal Cancer Survival by Stage and Insurance Status\*.

\*Patients aged 18 to 64 years diagnosed from 1999 to 2000; excluded from the analysis: unknown stage; race/ethnicity other than White, African American, or Hispanic; missing information on stage, age, race/ethnicity, or zip code. Data Source: National Cancer Data Base.

administrative, and access barriers that may be insurmountable for many patients.

The finding that patients with Medicaid coverage experience later stage at diagnosis than patients with private insurance must be interpreted with caution for several reasons. Most importantly, many individuals who are not otherwise eligible for Medicaid based on income and other characteristics qualify for coverage when they are diagnosed with a serious medical condition such as cancer. There is no publicly available source of information on the percentage of patients who are enrolled in Medicaid after diagnosis. A study in Michigan found that 36% of cancer patients with Medicaid coverage were enrolled in Medicaid after being diagnosed with cancer,<sup>45</sup> but it is not known how proportion may vary by state or cancer site.

A review of the impact of health insurance coverage on health, which was published by the Institute of Medicine in 2002, noted that many studies of overall health status, cancer outcomes, and hospital-based care have found that adults with Medicaid coverage frequently fare no better, and sometimes fare worse, than uninsured patients in their health-related outcomes.<sup>50</sup> According to this report, 2 factors contribute to poor outcomes for Medicaid enrollees. One factor mentioned earlier is that patients may become eligible for Medicaid as a result of poor health. The second is the structure and operation of Medicaid as an insurance program. The programmatic features of Medicaid that contribute to worse health-related outcomes include provider participation and payment levels and limited coverage periods. Payment rates below the cost of the care delivery reduce access to health care services for Medicaid enrollees in many states and localities. Thus, Medicaid enrollees often find themselves limited to the same set of overtaxed safety-net providers as uninsured adults, with concomitant delays in getting appointments and referrals to specialists. Medicaid's limited coverage periods also weaken any positive effects of insurance. One study based on a federal survey found that the median length of time that adults under age 65 years maintained Medicaid enrollment was just 5 months<sup>50</sup>; Medicaid requires eligibility certifications as frequently as monthly, and some

people lose coverage simply because they did not meet administrative requirements. As a consequence of the intermittency of Medicaid coverage, adults identified as covered by Medicaid at one point in time may not achieve the benefits that continuous health coverage can provide.

Health insurance status may be associated with survival through a variety of mechanisms. Later stage at diagnosis observed for Medicaid-insured and uninsured patients would lead to lower overall survival even if quality of treatment and success of treatment were equivalent to the privately insured. However, analyses of NCDB data for breast and colorectal cancer find that even within stage at diagnosis, survival is poorer for patients with no health insurance or with Medicaid insurance. Lower survival within cancer stage may result from a variety of factors related to access to care and quality of care, including adequacy of staging (leading to understaging); differences in tumor size, grade, or other prognostic factors within stage groupings; delays in initiation of treatment; differences in receipt of treatment consistent with recommended guidelines; quality and outcome of specific treatments, such as completeness of surgical resection; differences in provision of supportive care; and completion of the full course of therapy.

#### Limitations of Existing Data

Data are extremely limited on the relationship between insurance status and variations in cancer treatment. This limitation is due in part to the incompleteness of certain types of treatment information in cancer registry records, which makes it difficult to study treatment patterns or concordance with treatment guidelines using registry data alone. The most commonly used data resource for studying cancer treatment is the SEER-Medicare database, which by definition includes only insured patients. Among the limited number of studies conducted, one study found that insurance status and poverty level were predictors of having delays of greater than 3 months from initial diagnosis to start of treatment among women with invasive breast cancer.<sup>51</sup> Studies of variations in treatment among patients with breast and colorectal cancer have not found consistent variations in treatment and concordance with treatment guidelines by

insurance status.<sup>52–56</sup> However, there is considerable variation between studies in insurance groups and treatments considered. One study reported that patients who are uninsured or who have Medicaid insurance are less likely to receive surgery for lung and pancreatic cancer at high-volume facilities<sup>57</sup>; another found that the likelihood of initial presentation of colon cancer as a surgical emergency due to bowel perforation, peritonitis, or obstruction was 2.1 times higher among Medicaid enrollees and 2.6 times higher among uninsured patients than among privately insured patients under the age of 65 years.<sup>58</sup>

Although variations in health insurance coverage likely contribute to racial and ethnic disparities in cancer outcomes, disparities persist for several outcomes even when differences in insurance status are accounted for. Racial and ethnic disparities in health and health care occur in the context of broader historic and contemporary social and economic inequality and evidence of persistent racial and ethnic discrimination in many sectors of American life.<sup>59</sup> Even in the absence of financial barriers to care, factors that may impact receipt of optimal care for racial and ethnic minority patients include cultural and language differences between providers and patients that may result in poorer communication, undermining informed decision-making and patient's adherence to treatment regimens, experiences of discrimination that may directly affect both access to care and health and affect trust in the health care system and the doctor-patient

relationship.<sup>50</sup> Even if health insurance and financial barriers can be overcome, further research and interventions will be needed to address these barriers.

Although there is substantial evidence that insurance status is an important factor in access to and utilization of cancer care, there is little information on how economic issues impact treatment choices at the level of the individual patient. For example, to what extent do individuals forego treatment or select less than optimal treatment because they are unable to find a health care provider who is willing to provide it or because they are afraid of the level of medical debt that they would incur? As the cost of some new cancer therapies can exceed \$100,000 a year, to what extent will availability and type of insurance coverage, as well as individual financial resources, determine who has access to the most effective therapies?

#### CONCLUSION

There is substantial evidence that lack of adequate health insurance coverage is associated with less access to care and poorer outcomes for cancer patients. As our nation's investments in cancer research provide greater understanding of how to prevent cancer, detect it early, and treat it effectively, access to health care becomes even more important to the American Cancer Society's goal of eliminating cancer as a major public health problem.

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